



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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August 3, 1992

Mr. Edward B. King  
President  
Jumbo Mining Company  
6305 Fern Spring Cove  
Austin, Texas 78730

Dear Mr. King:

Re: Tentative Approval, Permit Amendment - Mizpah Pit & New Heap Leach Pad,  
Jumbo Mining Company, Drum Mine, M/027/007, Millard County, Utah

The Division has completed its review of Jumbo Mining Company's latest response to our January 14, 1992 technical review letter. Please accept our apology for the unforeseen delay in providing you with our review. Jumbo Mining Company has now adequately addressed the majority of the Division's remaining technical concerns. The Division is prepared to grant its tentative approval of the permit amendment proposals with the following conditions:

1. JMC must provide sufficient replacement surety (see revised surety estimate) to cover the calculated costs for reclamation of the Mizpah pit and the new heap leach pad. The Division has calculated separate surety amounts for reclamation of the Mizpah Pit and the new Heap Leach Pad. The surety is calculated in 1997 dollars and totals \$93,500. This surety must be made out jointly in the name of the State of Utah, Division of Oil, Gas & Mining and the U.S. Department of the Interior, Bureau of Land Management. We have enclosed a replacement Reclamation Contract (Form MR-RC) which must be completed with the updated information pertaining to these permit amendments. Please advise us with your preferred choice of reclamation surety so we may provide you with the appropriate surety form to be attached to the revised Reclamation Contract agreement.

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Mr. Edward B. King

M/027/007

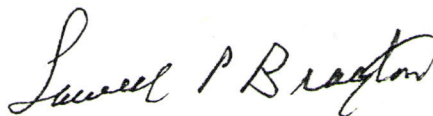
August 3, 1992

2. Because the operator has not completed the final design plans for the new heap leach pad facility, the Division can only conceptually approve of the location and type of facility at this time. The Division will defer to the State Department of Environmental Quality, Division of Water Quality, and the Bureau of Land Management, to establish the final design requirements, the construction (QA/QC) standards, the operational standards, and the final decommissioning effluent standards for this facility. The Division will require that JMC provide a complete copy of these final approved design plans for this facility once established and approved by these respective agencies. These plans will be made a part of the approved mining and reclamation plan for the Drum Mine. Further adjustments to the reclamation surety may be warranted as a result of the required final designs. Any necessary changes to the surety will be made at that time.

The Division will seek concurrence from the Board of Oil, Gas and Mining on the revised amount and form of surety. The Bureau of Land Management will also need to approve of the revised form and amount of reclamation surety. Final Division approval will be granted once the surety provisions and other pertinent conditions have been addressed.

We appreciate your cooperation and patience in finalizing this permitting action. Please contact me, or D. Wayne Hedberg of my staff, should you have remaining questions or concerns in this matter.

Sincerely,



Lowell P. Braxton  
Associate Director, Mining

jb

enclosures

cc: Dave Hartshorn, Drum Mine  
Don Ostler, DWQ  
Rex Rowley, House Range RA, BLM  
Wayne Hedberg, DOGM

M027007.1



# RECLAMATION ESTIMATE

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Jumbo Mining Company

Drum Mine – Mizpah Pit & New Heap Leach Millard County

Millard County

M/027/007

last revision

7/17/92

Prepared by Utah State Division of Oil, Gas & Mining

## Reclamation Details – Mizpah Pit Area

- Rip: roads, ramps & pit floors to 1.5 ft depth (2.9 acre)
- Contour & regrade waste dumps to 3h:1v slopes (10.3 acres)
- Grade/shape pit benches & highwalls to 1:1 or less (3.8 acre)
- Pit benches to be covered with waste mtl 12 " deep, (est 1.9 acre)
- Dumps to be covered with 6" topsoil (8,300 CY est, 10.3 acres)
- Clean up & removal of trash from entire site
- Scarify, seed & mulch: dumps, pit floors, roads (0.5 acre), also  
pit benches, and topsoil stockpiles (0.8 acre)
- Construct berms around western perimeter of pit (1800 ft)
- Possible variance to dump topsoiling if soil surveys support this
- Total disturbed area for the Mizpah pit = 18.6 acre
- Total area reclaimed at the Mizpah Pit = 15.2 acre

Description	Amount		\$/Unit	Cost-\$
Ripping to 1.5ft depth, 0.30 MPH	2.9	acre	814	2,361
Contour & regrading	10.3	acre	394	4,058
Grade/shape pit benches	3.8	acre	1129	4,290
Spread waste mtl on benches	4,840	CY	1.04	5,034
Spread topsoil on dump areas	8,300	CY	0.68	5,644
Clean up & remove trash	14.2	acre	47	667
Scarify, seed & mulch	16.6	acre	286	4,748
Construct berm around pit	1,800	ft	1.20	2,160
Mobilization	1	sum	5000	5,000
SUBTOTAL				33,962
+ 10% CONTINGENCY				3,396
SUBTOTAL				37,358
+ 5 yr ESCALATION(1.27%)				2,433
TOTAL				39,791
ROUNDED TOTAL IN 1997-\$				\$39,800

average cost per disturbed acre = \$2,140 per acre

# RECLAMATION ESTIMATE

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Jumbo Mining Company

Drum Mine - Mizpah Pit & New Heap Leach Millard County

Millard County

M/027/007

last revision

7/17/92

Prepared by Utah State Division of Oil, Gas & Mining

## Reclamation Details - **New Heap Leach Area**

- Ripping new roads; contour, regrade & topsoil heap
- Backfill, regrade & topsoil drainage trench
- Regrade & topsoil clay pit area (1.7 acre assumed)
- Scarify & seed all regraded areas; clean up & remove trash from site
- Construct berm around perimeter of clay pit (JMC estimate)
- Heap decommission by intermittent fresh water rinsing until neutralize
- ASSUMED heap decommissioning to take 45 days
- Exposed piping removed from heap & buried
- Exposed heap liner & pond liners punctured & buried
- Total reclaimed area = ???, total disturbed area = 17.77

Description	Amount	\$/Unit	Cost-\$
Ripping to 1.5ft depth, 0.30 MPH	0.72 acre	814	586
Contour & regrad heap sides	7.91 acre	394	3,117
Backfill drainage trench	3,200 tons	0.25	800
Spread topsoil on heap	15,606 CY	0.68	10,612
Spread topsoil on clay pit	1,663 CY	0.68	1,131
Spread topsoil on drainage trench	134 CY	0.68	91
Clean up & remove trash	17.77 acre	47	835
Scarify, seed & mulch	9.08 acre	286	2,597
Construct berm around clay pit	500 ft	1.20	600
Equipment-heap decommission	45 days	25	1,125
Labor-heap decommission	45 days	500	22,500
Miscellaneous-heap decommission	45 days	25	1,125
Sampling & analysis-heap decommission	JMC est		700
SUBTOTAL			45,819
+ 10% CONTINGENCY			4,582
SUBTOTAL			50,401
+ 5 yr ESCALATION(1.27%)			3,283
TOTAL			53,683
ROUNDED TOTAL IN 1997-\$			\$53,700
average cost per disturbed acre = \$3,022 per acre			

COMBINED RECLAMATION ESTIMATE TOTAL IN 1997-\$ \$93,500